A PROJECTIVE METHODOLOGY FOR THE DIAGNOSIS OF CHILDREN'S CONCEPTS ABOUT THE INFLUENCE OF THE ANTHROPOGENIC FACTOR ON THE STATE OF THE ENVIRONMENT (AS THE HABITAT OF ALL LIVING CREATURES)

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Abstract: In today's dynamic world, in the course of the intensive technology development, adolescent's interest is being shifted to the audio-visual technologies and the media, the values and morals are depreciated, anthropocentrism, expressed in the message "Man - the master of nature," is being enforced.

The basic paradigm of our consumer-oriented daily life is creating ever more complex environmental problems, especially when interacting with the surrounding world. This determines not only the acquisition but also the subsequent deepening of the environmental competence of adolescents starting from pre-school age.

This article outlines the structure of environmental competence. It shows both its individual components and the contents thereof.

The article examines projective methodologies not only as a reliable but also as a necessary component of pedagogical diagnostics. It is through projective methodologies that children are able to provide impulsive responses, recognizing themselves in a particular situation. This is undoubtedly a precondition for accurate and comprehensive analysis (both quantitative and qualitative).

Turning to the pedagogical reality, we can draw the following conclusion: pre-school pedagogy lacks methodologies examining the environmental competence of pre-school children. This causes us to propose in this article a standardized version of a projective methodology for studying the environmental competence of pre-school children. The diagnostic qualities of the projective methodologies vary from the ability of examining particular phenomena to the ability of examining widely generalized phenomena. Another advantage of the projective methods is the easy contact with the preschool children who will be diagnosed. It is precisely the projective methodologies that provoke impulsive associations in adolescents, thus allowing to make a more precise assessment when diagnosing the children in the studied field.

The scientific purpose of the methodology we propose is to diagnose children's concepts about the influence of the anthropogenic factor on the state of the environment (as the habitat of all living creatures).

We believe that the data obtained from the projective methodology we propose could effectively serve to determine the environmental competence of pre-school children.

Keywords: environmental competence, projective methodologies

1. PREREQUISITE FOR USING PROJECTIVE METHODOLOGIES IN PEDAGOGICAL DIAGNOSTICS

The notion "projection" has a Latin etymology (projection) and literally means to throw away, to push out.

Projective methodologies, by their very nature, represent the display of stimuli (be it real or non-existent, different in content - drawings, diagrams, maps, spots) by the researchers.

Projective methods aim at a deeper "insight" into the values of the subjects examined, in the preconditions for the utterance, action, deed performed.

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Another advantage of the projective methods is the easy contact with the preschool children who will be diagnosed. It is precisely the projective methodologies that provoke impulsive associations in adolescents, thus allowing to make a more precise assessment when diagnosing the children in the studied field.

2. STANDARDIZED PROJECTIVE METHODOLOGY FOR THE DIAGNOSIS OF CHILDREN'S CONCEPTS ABOUT THE INFLUENCE OF THE ANTHROPOGENIC FACTOR ON THE STATE OF THE ENVIRONMENT (AS THE HABITAT OF ALL LIVING CREATURES).

Scientific purpose: To diagnose the child's concepts about the influence of the anthropogenic factor on the state of the environment (as the habitat of all living creatures).

Materials: photos depicting adverse anthropogenic impact on the environment



Fig. No. 6





Fig. No. 8

Materials: The methodology consists of 3 situations in *two modifications - for boys and for girls.* In the first modification, the main character is a girl (Tanya) and in the second - a boy (Ivan). For each separate situation, the child is shown the pictures of the negative anthropogenic impact on the natural environment (fig. No. 1 for situations No. 2 A/ 2 B; choice. No. 2 - situations No. 3 A/ 3 B; choice. No. 3 - situations No. 4 A/ 4 B). The research procedure is carried out by working individually with each child. The instruction reads: "I will tell you a few short stories and I will stop from time to time. When I stop, you will tell me the first thing that comes into your mind." In order for the child to understand what is required from them, they are first told a situation, which is not relevant to the study (learning situation No. 1). Afterward, the researcher proceeds to working on the situations of the methodology. The answers are transcribed verbatim in a protocol.

Learning situation No. 1

Once upon a time, there was an old man. The old man had a large yard, where animals lived - hens, roosters, sheep. One day, as the rooster was pecking seeds, he found a gold coin. What did he do with it? Then a hen met him. The rooster stopped next to her and said ... What did the rooster say? The two of them hurried toward Where did the rooster and the hen go?

Situation No. 2 A/B

Tanya/Ivan was walking near our town of Burgas. Suddenly he/she noticed a factory. This is what was coming out from the factory's large chimneys. (The experimenter points out the smoke coming from the chimneys.) After seeing it, Tanya/Ivan said: "The air here is....". Afterward, Tanya/Ivan assumed: "The air is like this because.... People who breath this air feel.... And the animals.... And the plants.... In order not to pollute the air, we must

Situation No. 3 A/B

Tanya/Ivan was walking on the beach in Burgas. Suddenly he/she noticed this. (The experimenter points to the waste.) After seeing it, Tanya/Ivan said: "The beach here is....". Afterward, Tanya/Ivan assumed: "The beach here has gotten like this because People who walk on this sand feel And the animals And the plants.... In order not to pollute the sand, we must"

Situation No. 4 A/B

Tanya/Ivan was walking in the forest. Suddenly he/she noticed this. (The experimenters points to the cut down trees.) After seeing it, Tanya/Ivan said: "The forest here is....". Afterward, Tanya/Ivan assumed: "The forest looks

like this because When they see that the trees are gone, people feel When the trees are gone, this is what will happen to the animals: In order to keep the trees in the forest, we must"

Method of reporting and interpreting the results.

Protocol for recording the individual test results

"What is happening here?"

Text No. 2 A/B

Child's name...... Age..... Research date.....

	Child's answer	Total points
The air here is		
The air is like this because		
People who breath this air feel		
And the animals		
And the plants		
In order not to pollute the air, we must		

Protocol for recording the individual test results "What is happening here?"

Text No. 3 A/B

Child's name..... Age..... Research date.....

	Reasoned answer	Total points
The beach here is		
The beach here has gotten like this		
because		
		l
People who walk on this sand feel		
And the animals		
And the plants		
In order not to pollute the sand, we		
must		

Protocol for recording the individual test results "What is happening here?" Text No. 4 A/B

	Reasoned answer	Total points
The forest here is		
The forest looks like this because		
When they see that the trees are gone, people feel		
When the trees are gone, this is what will happen to the animals:		
When the trees are gone, this is what will happen to the plants:		
In order to keep the trees in the forest, we must		

Method of reporting and interpreting the results:

Criterion 1 - the child notices the actual state of nature (as a habitat of all living creatures) as a result of the influence of the anthropogenic factor

Indicator 1.1 - the child recognizes and indicates specific consequences for the plants due to the impact of the anthropogenic factor on nature. Each specific and logically reasoned consequence is given 1 point. In the absence of an answer or a wrong answer, no points are awarded.

Indicator 1.2 - the child recognizes and indicates specific consequences for the animals due to the impact of the anthropogenic factor on nature. Each specific and logically reasoned consequence is given 1 point. In the absence of an answer or a wrong answer, no points are awarded.

Indicator 1.3 - the child recognizes and indicates specific consequences for humans themselves due to the impact of the anthropogenic factor on nature. Each specific and logically reasoned consequence is given 1 point. In the absence of an answer or a wrong answer, no points are awarded.

Criterion 2 - the child finds specific reasons for the state of nature (as a habitat of all living creatures).

Indicator 2.1 - the child defines a specific reason for the state of nature as a consequence of the anthropogenic factor

Criterion 3 - the child is able to predict the likely outcomes of the unfavorable situation that was created for the nature

Indicator 3.1 - the child suggest an adequate solution to a specific issue that is the consequence of the influence of the anthropogenic factor on nature (as a habitat of all living creatures)

The maximum number of points is 18 p. and it determines five intervals:

- 1. **High level** of notion of the relationship between the animal and the environment a result from 18 p. to 16 p.:
- 2. Average level of notion of the relationship between the animal and the environment a result from 15 p. to 13 p.:
- 3. **Satisfactory level** of notion of the relationship between the animal and the environment a result from 12 p. to 10 p.:
- 4. **Unsatisfactory level** of notion of the relationship between the animal and the environment a result from 9 p. to 7 p.:
- 5. Lack of any notion about the relationship between the animal and the environment a result below 7 p.

3. CONCLUSION

The standardized version of the projective methodology, which we propose, aims to study the child's perceptions of the influence of the anthropogenic factor on the state of the environment (as a habitat of all livings creatures) and to establish the results after conducting a pedagogical experiment, related to the deepening and development of environmental competence.

The data obtained can, as a result, be used to determine the environmental competence of children at pre-school age.

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